

REMARKS

Claims 1, 3-7, 9-11, 13-16 are pending in the application; claim 12 is canceled with the instant amendment.

Rejection under 35 U.S.C. 102

Claims 1, 3-5, 11-16 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Japan 9-209723*.

Claim 1, 15, 16 have been amended to include the feature that the sidewalls of the stator vanes diverge radially inwardly beginning at the inner wall of the stator and the feature that the stator vanes have lateral surfaces with a recess at the end face, respectively, wherein the recesses face the rotor vanes, respectively, and cause a damping effect when the rotor vanes approach the stator vanes.

The features are disclosed in claim 12, in the specification in paragraph 0036 ("damping effect by recesses 27, 28, 29, 30) and in the drawings (diverging radially inwardly beginning at the inner wall).

The cited JP-reference does not show stator vanes that **diverge radially inwardly beginning at the inner wall of the stator** - Figs. 2, 4, 5 show that the stator vanes **converge** beginning at the inner wall of the stator.

Also, the cited reference does not disclose recesses in the lateral surfaces of the stator vanes at the end face which recesses provide a damping action. The lateral surfaces simply converge from the widest point toward the end face. No damping action is disclosed.

The claims 1, 15, 16 are therefore not anticipate or obvious in view of the cited reference and should be allowable together with the dependent claims.

Reconsideration and withdrawal of the rejection of the claims pursuant to 35 USC 102 are therefore respectfully requested.

Rejection under 35 U.S.C. 103

Claims 16-17, 20 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over *Peo et al.* in view of *Folland et al.*

As pointed out above, claims 1, 15, 16 have been amended to include the feature

that the sidewalls of the stator vanes diverge radially inwardly beginning at the inner wall of the stator and the feature that the stator vanes have lateral surfaces with a recess at the end face, respectively, causing a damping effect when the rotor vanes approach the stator vanes.

The features are disclosed in claim 12 and in the specification in paragraph 0036 (“damping effect by recesses 27, 28, 29, 30) and in the drawings (diverging radially inwardly beginning at the inner wall).

The examiner states that *Peo et al.* does not disclose that the stator vanes diverge radially inwardly and match the shape of the sidewalls of the rotor vanes and that the stator vanes have recesses proximal to the end face. The examiner argues that *Folland et al.* shows that the stator vanes diverge radially inwardly and match the shape of the sidewalls of the rotor vanes. In examiner’s opinion, it would have been obvious to employ the “diverging shape” of the stator vanes of *Folland et al.* in *Peo et al.* in order to minimize dead space.

Applicant disagrees: *Folland et al.* does not show that the stator vanes **diverge radially inwardly** - the stator vanes **converge** as do the stator vanes of *Peo et al.* When drawing radial lines that extend from a point where the stator vane meets the inner wall through the center of the arrangement, it is apparent that the stator faces **converge**: the stator vanes taper more than they would if they followed the radial lines i.e., they become narrower but not wider in the radial direction. Attached is a marked-up sketch of *Folland et al.* (Figs. 16., 17) showing that the lateral faces of the stator vanes converge relative to the radial lines through the center.

Moreover, assuming that *Folland et al.* show a matching shape of stator and rotor vanes, i.e., a recess adjacent 34F, note that 34F, as described in col. 3, lines 57-68, of *Folland et al.*, is a drainage passage as well as supply passage relative to the chambers A, B, C, D, as needed. The medium in the respective chamber will be drained through the passage 34F as rotor vane approaches stator vane so that this arrangement cannot provide a damping action.

Therefore, claims 1, 15, 16 are not obvious in view of the combination of the cited

references.

Reconsideration and withdrawal of the rejection of the claims pursuant to 35 USC 103 are therefore respectfully requested.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on October 2, 2006,

/Gudrun E. Hockett/

Ms. Gudrun E. Hockett, Ph.D.
Patent Agent, Registration No. 35,747
Lönsstr. 53
42289 Wuppertal
GERMANY
Telephone: +49-202-257-0371
Facsimile: +49-202-257-0372
gudrun.draudt@t-online.de

GEH/sketch US 5,201,637

MARKED-UP SKETCH

